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THE UNIXED STATES PATENT AND TRADEMARK OFFICE

First Named

Inventor : Michael Seltzer et al.

Appln. No.: 10/647,586

Filed

: August 25, 2003

For

: METHOD AND APPARATUS USING

HARMONIC-MODEL-BASED FRONT END FOR ROBUST SPEECH

RECOGNITION

Docket No.:

M61.12-0550

Group Art Unit: 2641

Examiner:

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 I HEREBY CERTIFY THAT THIS PAPER IS BEING SENT BY U.S. MAIL, FIRST CLASS, TO THE COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450, THIS

6 DAY OF Janaay

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PATENT ATTORNEY

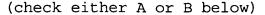
Sir:

The patents or publications listed on the enclosed PTO Form-1449 are submitted pursuant to 37 C.F.R. § 1.97. Copies of the patents or publications cited are enclosed, except as waived by the Official Gazette notice of August 5, 2003 regarding copies of U.S. Patents and Published Applications.

TIME OF FILING

The information disclosure statement is being filed:

- 1. X with the application or within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. In accordance with 37 C.F.R. § 1.97(b), no statement or fee is required.
- 2. ___ after the time period specified in paragraph 1 above, but before the mailing date of a final action under 37 C.F.R. § 1.113 or notice of allowance under 37 C.F.R. § 1.311. Therefore, in accordance with 37 C.F.R. § 1.97(c), submitted herewith is:



- A. a statement as specified in 37 C.F.R. § 1.97(e).
- B. ___ the fee set forth in 37 C.F.R. § 1.17(p) for submission of an information disclosure statement under 37 C.F.R. § 1.97(c).
- 3. ____ after the mailing date of either a final action under 37 C.F.R. § 1.113 or a notice of allowance under 37 C.F.R. § 1.311, whichever occurs first, but before payment of the issue fee. Therefore, Applicant petitions for consideration and submits herewith:
 - A. a statement as specified in 37 C.F.R. § 1.97(e);
 - B. the petition fee set forth in 37 C.F.R. § 1.17(p).

STATEMENT

(only used if No. 2(A) or No. 3 above is checked) The person(s) signing below certify

(check appropriate paragraph)

that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement. 37 C.F.R. § 1.97(e)(1).

OR

that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement. 37 C.F.R. § 1.97(e)(2).

METHOD OF PAYMENT

| X | No fee | is | rec | uired. | | | | | |
|---|---------|-----|------|--------|----|-----|--------|----|--------|
| | Attache | d i | is a | check | in | the | amount | of | \$ |

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123. A duplicate copy of this communication is enclosed.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

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| FORM PTO-1449 | TADEMARKS | Atty. Docket No.: M61.12-0550 | Appl. No.: 10/647,586 | | | |
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| APPLICA | S AND PUBLICATIONS FOR NT'S INFORMATION SURE STATEMENT | First Named Inventor: | | | | |
| | | Michael Seltzer et | Michael Seltzer et al. | | | |
| | | Filing Date | Group Art: | | | |

August 25, 2003

U.S. PATENT DOCUMENTS

| Examiner Initial | Document No. Date Name | | Class | Sub Class | Filing Date If Appropriate | |
|---------------------|---------------------------|--|-------|--------------|-------------------------------|--|
| AA | | | | | | |
| AB | | | | | | |
| AC | | | | | | |
| AD | | | | | | |
| AE | | | | | | |
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| AK | | | | | | |

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

| | 1.10 | | | | |
|-----------|--|--|--|--|--|
| AL | | c Cepstral Coefficients for Speech Recognition of ICASSP, Salt Lake City, Utah, May 2001. | | | |
| AM | Ealey, D., et al., "Harmonic Tunnell Speech," Proceedings of Eurospeech, | ling: Tracking Non-Stationary Noises During Aalborg, Denmark, September 2001. | | | |
| AN | | cive Algorithm for Decomposition of Speech Components," IEEE Transactions on Speech and ages 1-11, January 1998. | | | |
| AO | Laroche, J., et al., "HNM: A Simple Efficient Harmonic + Noise Model for Speech," Proceedings of IEEE Workshop on Applications of Signal Processing to Audio and Acoustic, Mohonk, NY, October 1993. | | | | |
| AP | Tabrikian, J., et al., "Speech Enhancement by Harmonic Modeling Via Map Pitch Tracking," Proceeding ICASSP 2002, Vol. 1, pages 1549-1552. | | | | |
| EXAMINER: | | DATE CONSIDERED: | | | |

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.